

Bibliographic Information

Stabilized paper size. Yamaguchi, Yoshiharu; Iwai, Ryu; Oikawa, Hideo; Miyazaki, Shigeru. (DIC Hercules, Inc., Japan). Jpn. Kokai Tokkyo Koho (1986), 7 pp. CODEN: JKXXAF JP 61034298 A2 19860218 Showa. Patent written in Japanese. Application: JP 84-152076 19840724. CAN 105:26068 AN 1986:426068 CAPLUS. (Copyright 2005 ACS on SciFinder (R))

Patent Family Information

<u>Patent No.</u>	<u>Kind</u>	<u>Date</u>	<u>Application No.</u>	<u>Date</u>
JP 61034298	A2	19860218	JP 1984-152076	19840724
JP 06033597	B4	19940502		
JP 06101192	A2	19940412	JP 1993-82524	19930318
JP 06072395	B4	19940914		

Priority Application

JP 1984-152076 19840724

Abstract

Paper sizes having excellent sizing property, stability, and hydrolysis resistance, are prepd. by emulsifying substituted cyclic dicarboxylic anhydrides [I; R = C₂-5 (ar)alkyl, (ar)alkenyl; n = 2-3] with oil-in-water surfactants and cationic or amphoteric acrylamide or methacrylamide polymer contg. 0.1-2 mol% cationic monomer and 0-3 mol% anionic monomer. Thus, dimethylaminoethyl methacrylate (II) and acrylamide (III) were copolymd. in a mixt. of H₂O and iso-PrOH and acidified with 20% H₂SO₄ to pH 4-4.5 to give a 20% aq. soln. of cationic copolymer (IV) contg. 0.5 mol% cationic groups, 100 parts of which was mixed with 2 parts Hitenol 7 (ammonium polyoxyethylene nonylphenyl ether sulfate) and 48 parts H₂O, then emulsified with 100 parts hexadecenylsuccinic anhydride to give an aq. emulsion. Paper sized with the hydrolyzed emulsion (d. of hydrolysis 8%) showed Stoechigt sizing degree 14 s (carbonate paper) and 52 s (corrugated fiberboard wastepaper), compared with 9 and 55 s, resp., for paper sized with an 80:20 cationic III-II copolymer instead of IV.

